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ABSTRACT

This study was conducted to determine whether the attitudes of the various constituent representatives (administration, faculty, students, and noncontract personnel) differed significantly toward the Institutional Governance system as operative at Delaware County Community College (Pennsylvania). Following Osgood's Semantic Differential technique for surveying in the affective domain, it was found that there was no significant differences among the constituent bodies in any of the oriented activities, evaluation or potency modes. Indeed, there was a high degree of correlation among all the constituent groups' attitudes toward this participative governance system. Although the theoretical structure of the Institutional Governance system would appear to be an almost ideal model for collective input and decision making because of broad representation and two-way communication channels, it is still felt by all constituent groups to be aggravating, complex, and slow. It is therefore recommended that the governance system at Delaware County Community College be streamlined in both size and efficiency, that feedback on recommendations be more continuous, and that viable committee decisions be implemented more expediently. (Author/MJK)

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A DESCRIPTIVE STUDY OF THE SEMANTIC
CONNOTATIONS TOWARD THE INSTITUTIONAL GOVERNANCE
SYSTEM AT DELAWARE COUNTY COMMUNITY COLLEGE OF THE
SEVERAL CONSTITUENT GROUPS

BY

Bruce T. Wyman

A PRACTICUM PRESENTED TO NOVA UNIVERSITY IN PARTIAL
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TABLE OF CONTENTS

Title	1
Problem	1
Explanation	1
Hypothesis	2
Background and Significance of the Study	3
A. The Institutional Governance system at Delaware County Community College	3
Philosophy	4
Policy Statement Regarding "Faculty Participation in Institutional Governance	4
By-Laws For Institutional Governance	5
B. The National Literature and Attitudes Toward Institu- tional Governance	5
The National Literature and Institutional Governance	5
The National Literature and Attitudes Toward Institu- tional Governance	7
The National Literature and New Models for Institu- tional Governance	9
C. The National Literature and Attitudinal Studies	10
Definitions	12
Limitations of the Study	13
Basic Assumptions	14
Procedures for Collecting Data	15
Procedures for Testing Data	16
Results	18
Residual Findings	19
Recommendations	23

Bibliography	27
Appendix A: Semantic Differential Instrument	29
Directions	29
Survey Instrument	30
Appendix B: Graphs Showing Findings By Affective Mode and Constituency	31
Oriented Activity	31
Evaluation	32
Potency	33
Appendix C: Tables of Category Findings by Affective Mode and Constituency, Including F Tests	34
Oriented Activity Means - by Constituency	34
Evaluation Means - by Constituency	35
Potency Means - by Constituency	36
Appendix D: Specific Categories of Attitudes that are Statistically significant in Differences of Constituency Means, including F and t Tests	37
Passive - Active	37
Unsuccessful - Successful	38
Aimless - Motivating	39
Untimely - Timely	40
Constrained - Free	41

- TITLE:** A Descriptive Study of the Semantic Connotations Toward the Institutional Governance System at Delaware County Community College of the Several Constituent Groups.
- PROBLEM:** Are there Semantic Differentials among the various constituent bodies (administration, faculty, students and non-contract personnel regarding the system of Institutional Governance at Delaware County Community College?
- EXPLANATION:** Although the theoretical structure of the Institutional Governance system at Delaware County Community College would appear to be an almost ideal model for collective input and decision making, the reactions of the various groups represented in the governance system seem to indicate that it is ineffective. The students either avoid meetings entirely or remain passive when they do attend. The faculty has recently elected to be represented by PAHE/NEA in collective bargaining and the non-contract personnel are investigating taking the same route. Two of the prime reasons stated for these actions are the lack of communication throughout the institution and the inability to make their several and collective voices heard in decision making. Further, the administrative personnel appear to feel frustrated in their attempts to make the system viable.

HYPOTHESIS: There are significant differences in the Semantic Differential results among the various constituent groups regarding the Institutional Governance system at Delaware County Community College.

BACKGROUND AND SIGNIFICANCE OF THE STUDY

A. The Institutional Governance system at Delaware County Community College.

The national literature concerning the various systems of institutional governance structures at college and university levels has been reviewed with emphasis on the two-year community college. Of especial interest is the reactions of the constituent groups involved in these structures. The perceived reactions of those involved are just as real and important as the formal structural framework in the viability of these systems. In order to help make the Institutional Governance more effective at Delaware County Community College, a research design has been developed to ascertain the "gut reactions" of the people involved within this structure.

The students, the non-contract personnel, the faculty and the administration--specifically Dr. Theodore Quimby, Vice President of Instruction and Dr. Kenneth Varcoe, Dean of Students--have indicated uncertainty with the current operations of the Institutional Governance system, especially in light of the recent faculty election to be represented by collective bargaining. Since the formal structure is in the best of contemporary styles in terms of institution-wide representation (it involves all the various constituent bodies of the college community and allows for communication in both upward and downward directions and requires feedback all along the line), yet is perceived as ineffective, pedantic, cumbersome and a waste of valuable time by many; it would appear that difficulties in operating the system lie in the attitudinal, affective domain rather than in the reasoned, cognitive domain. The one formal weakness appears to be that

all group decisions are purely advisory in nature--no group in the governance structure has any decision-making power. The President must make all decisions, or seek decisions from the Board of Trustees.

Delaware County Community College was founded in 1967 as a comprehensive two year public institution under the Pennsylvania Community College Act of 1963. The stated philosophy of the institution is as follows:

PHILOSOPHY

The Delaware County Community College is committed to the comprehensive community college philosophy of meeting the post-high school educational needs of the community it serves. Within this area of responsibility and available resources, the college is dedicated to the policy of providing educational opportunities that will permit the youth and adults of the area to enrich their lives, develop themselves personally, and advance their careers to the limit of their desires and capabilities.

The role of the College is to offer programs and services for which it is particularly capable. It seeks to complement, not duplicate unnecessarily, those offered by other community institutions and agencies. Further, the College aspires to be an accessible, comprehensive, community-centered and flexible institution.

The increased social and economic well being enjoyed by persons who avail themselves of these opportunities for individual growth will be reflected in the development of the business, industrial, professional, public service, and civic segments of the community.

In the process of making manifest this stated philosophy, the Board of Trustees established the following policy statement:

FACULTY PARTICIPATION IN INSTITUTIONAL GOVERNANCE

The Board of Trustees recognizes that participation by the faculty in policy development provides an opportunity for valuable contribution from the professional staff, helps to maintain open lines of communication among board,

administration and faculty, and insures broad consideration of mutual concerns for the continued development of the Community College of Delaware County.

With an awareness of this commonality of goals and interests, the Board of Trustees authorizes the President to develop an organizational structure which provides for such faculty participation.

However, when the administration developed regulations to carry out this policy by creating a system of Institutional Governance, they included representatives of all the constituent groups, namely Administration, Faculty, Students and Non-Contract Personnel as indicated in the Preamble to the By-Laws:

BY-LAWS FOR INSTITUTIONAL GOVERNANCE

PREAMBLE

These By-laws and those of other constituent groups, consistent with the policy of the Board of Trustees, are designed for the purpose of defining powers, organization and procedures through which members of the entire College Community may be involved in institutional governance.

B. The National Literature and Attitudes Toward Institutional Governance.

The National Literature and Institutional Governance

There is a real plethora of literature about institutional governance systems. Some are descriptive of what exists, others suggestive of needed changes in the light of recent student and faculty's tendencies toward greater militancy.

Corson gives a fairly good and representative statement of the traditional, autocratic administrative governance structure where suggestions and ideas are solicited from the entire college community,

but most decisions are handed down from the top. He states, "The men and women who have been presidents are the ones who have had the major role in the making of decisions that determine the institutions' futures, as well as their current effectiveness." (7:190). He laments on the same page that, unfortunately, "The preponderant source of information about the president's role is the writings of the presidents themselves," and therefore we have only an inside-view without the leaving objective view from outside to evaluate what the roles actually are for college presidents and just how effectively these are fulfilled.

A very traditional administrative governance structure is pictured by Blackwell which he avowedly designed with a "big-business" model in mind. In the foreword it is stated that Blackwell believes, "That sound principles of organization and administration must be observed when administering higher institutions if such institutions are to make maximum contribution to society." (4). And, in order to accomplish this, power, knowledge and decisions go from the top down!

That change was inevitable from the autocratic systems of the past is illustrated in the somewhat humorous view by Birenbaum, a community college president, concerning higher education especially in a big city. All views need to be expressed, all parties need to feel significant parts of the college community, but this is only beginning to be achieved. He suggests, for instance, "Faculty Power is oligarchical, and the success of its exercise is really the work of a relatively few." (italics are his) (3:70).

Recognising that change was underway, Carr (6) did a study of student input into college governance. In a survey of 109 colleges and universities he found four channels of student participation which he labeled: Channel A - Student Councils, Channel B - Joint Councils, Channel C - Student Committees and Channel D - Joint Committees. Channels A and C were limited to students interacting among themselves and, perhaps, making recommendations to some administrators. Channels B and D, labeled joint, included faculty, administrators and occasionally non-contract personnel as well as the students. The former two channels, called councils, were broad in scope and the latter two, committees, dealt with specific and limited areas. Part of his conclusions are that an increasing number of schools were adding B type channels, joint councils, to their institutional governance systems on paper, but were, in fact, discouraging real student input effectively when such factors as absenteeism, actual participation and felt personal significance and power were measured. This conclusion seems to sum up student involvement at Delaware County Community College very well.

THE NATIONAL LITERATURE AND ATTITUDES TOWARD
INSTITUTIONAL GOVERNANCE.

Budig and Rives have conducted research on the expectations students, faculties, trustees, governments and the public have of college and university administrators. "The expectations are staggering, but in order for one to succeed--or even survive--he must have a reasonable comprehension of them, regardless of their relevance." (italics added) (5:7). Perceptions, conceptions and viewpoints are always

skewed out of shape by the individual's own life-space and the intelligent administrator needs to be cognizant of their existence. They suggest that faculty and student expectations increasingly include educational leadership, effective communication and participatory governance. (5:29-49).

In summarizing the arguments for giving students formal roles in institutional governance, McGrath lists, among others, a) education is essential to the whole individual and therefore the educational community should reflect the larger society where all people help make the decisions, b) the expanded social consciousness of the current students qualify them to participate in reforming higher education and c) students are uniquely qualified to render certain judgements about the teacher-learning process and thus should be included in selecting staff members and evaluating their professional performance (15: 51-60). He goes on to add parenthetically that the students have come to believe these things and if they are not given a share of the power, they will demand a share. In like manner, Lee and Bowen (13) suggest that the future must lie in a multi-constituent governance system if outright militant demands are to be avoided.

Anderson (1) asks the question, "Does Governance Make A Difference?" and gives a resounding, "Yes!" as his answer, suggesting that goals and the means to attain them, have been severely threatened by the attitudes of both external and internal forces. He concludes that old autocratic methods no longer work and that new ways are needed. In like vein, Ecker and Baldrige conducted a series of questionnaires concerning 1) who makes which decisions in colleges

and universities, 2) what difference does this make relative to professional involvement in teaching and research and 3) what difference does this make in terms of faculty involvement in or avoidance of institutional governance (11). And the Carnegie Commission on Higher Education conducted a survey on faculty and student attitudes which included institutional governance aspects. (6). Both of these studies echo Anderson that involvement does make a difference, a very healthy difference.

THE NATIONAL LITERATURE AND NEW MODELS FOR INSTITUTIONAL GOVERNANCE

One of the most significant stage setters for new patterns for institutional governance is the impact of collective bargaining. Lombardi (14) points out that collectively bargained contracts differ from policies in that contracts must be agreed to by all parties. These contracts usually give faculty more decision-making power. Many lower ranking administrators, he suggests, are caught in the middle. He adds that the faculty's normal position that anything is subject to negotiation, regardless of law, usually holds sway. Philadelphia Community College illustrates very well the divisiveness that results from faculty demanding rather than evolving into political voice (17).

To avoid such blatant confrontations or power politics, new modes of institutional governance are being set up. Foote (11), for instance, demands decentralization of power, increased participation by students and faculty and, therefore, a whole new governance structure to incorporate these aspects.

In developing a political model for studying college and university governance systems, Baldrige lists the following assumptions

which give an excellent framework for a new model of institutional governance:

1. Conflict is normal, expected and natural
2. Universities are fragmented into many power blocs, each seeking its own interests
3. Small groups of political elites govern most of the major decisions--but not just one bloc's elite group
4. In spite of this control by elites, democratic tendencies are spreading
5. Formal authority, as described in a bureaucratic system, is severely limited by the many groups applying pressure
6. External interest groups have much power, therefore internal groups cannot make their own decisions in a vacuum (2).

With these types of assumptions in mind, Richardson, et al. (18) have constructed a new "Participational Model of an Organization" for institutional governance where power, authority and communication is overlapping and interwoven. The resulting attitudes of the constituents is no longer one of inevitable submission to father-like authority, but rather one of important involvement. Needs of fulfillment or even self-actualization should be being met in all involved.

C. THE NATIONAL LITERATURE AND ATTITUDINAL STUDIES

In discussing the methodology of attitudes, Stephenson (19:227f) supports Kreck and Crutchfield's contention (12:209ff) that even a single individual's attitudes can be adequately measured. Such dimensions as importance, intensity and direction do not lend themselves to norms. They can be scaled, however, and one group's results meaned and compared with another group's mean.

Cronback (8:501-504) and Varcoe (20:59) report that Osgood's Semantic Differential method was developed for research on perception, meaning and attitudes. It indirectly measures the connotations of

words and/or objects. Describing this Semantic Differential as a measuring instrument Osgood, Suci and Tannenbaum remind the reader that it is

a highly generalizable technique of measurement which must be adapted to the requirement of each research problem to which it is applied. There are no standard concepts and no standard scales; rather, the concepts and scales used in the particular study depend upon the purposes of the research (16:76)

They advise the following criteria for selecting scales: 1) factorial composition--specifically three, oriented activity, evaluation and potency and at least three scales to represent each; 2) relevance to the concepts being judged; 3) semantic stability and linearity between opposite poles and passage through the origin (16:78f). The Semantic Differential is essentially a combination of controlled association and scaling procedures. It is used to get at both connotative meaning and affective response. It uses indirect measurement in the expectation that the subjects' free association will be more accurately descriptive of his visceral reactions (16).

DEFINITIONS

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In order to provide a meaningful understanding of terms used in this paper, the following definitions have been utilized:

1. Administration - President, Vice-Presidents, Deans, Associate Deans, Directors, Assistant Directors, Administrative Assistants, and, for the purposes of institutional governance, non-contract, exempt personnel.
2. By-Laws of the Institutional Governance - the formal, official By-laws of the Institutional Governance system for Delaware County Community College as revised and ratified by the officers of the College on October 9, 1972. It is a thorough description of the constituents involved, Standing and potential Ad-Hoc Committees, lines for reporting recommendations and actions there-on with the caveat that all activities of the governance system are advisory and recommendatory in nature. There is no decision-making authority implied.
3. Category - a specific scale of semantic stability and linearity between opposite poles and passage through the origin used on the questionnaire in one of three affective modes--oriented activity, evaluation or potency; e.g., meaningless - meaningful in the evaluation mode.
4. Constituent groups - the several groups represented in the governance system, to wit: administration, faculty, students and non-contract personnel.
5. Faculty - all members of the faculty who have academic rank and are not listed as part of the administration.
6. Institutional Governance - the formal structure and techniques by which the various constituent bodies of the college impinge upon or participate in the decision-making activities of the institution.
7. Non-Contract Personnel - all full time or part-time non-contract, non-exempt employees of the College
8. Policy Manual - the official College guide to policy regulations of the Institution. It is an in-depth volume which promulgates all official regulations and procedures of Delaware Community College.
9. Semantic Differential - a technique for measuring indirectly affective and cognitive connotations of a concept along a linear polar track passing through the origin.
10. Students - all members of the student body currently enrolled as regular or special students.

LIMITATIONS OF THE STUDY

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In any study, there arise a series of variable which cannot be controlled. This study is no exception. The following limitations are hereby noted:

1. Administrators were screened to avoid using administrative officers to whom committees do not report. This severely limited the number involved.
2. Only students and non-contract personnel were used who had been, at least theoretically, directly involved in the Institutional Governance. This not only severely limited the ample size, but also meant that no randomness could be employed.
3. The degree of interest or involvement of the respondents was not measured; the only criterion in this vein being that they had been selected to be involved in the Institutional Governance by their constituent body.
4. Some interest in the governance system can be inferred for the students and non-contract personnel, as they had agreed to serve. The same cannot necessarily be assumed of the faculty and administration since serving in the system is expected as part of their duties.
5. The sample sizes of the various constituent groups are necessarily very small. Of the nine administrators available according to the limitation above all completed the survey. Ten of fourteen non-contract personnel and six of seven students (many of the latter no longer on campus) likewise completed the questionnaire. As for

the faculty, twenty names were chosen by randomly drawing the names from a hat, and seventeen completed the survey.

BASIC ASSUMPTIONS

In any survey, certain aspects are taken for granted. This study has made the following basic assumptions:

1. That the scales used are indeed linear, proceeding from one pole through the origin to the other pole
2. That the concepts employed are relevant to the concept being judged.
3. That the scales do hold "semantic stability" that is, that all will interpret the terms in approximately like manner.
4. That the specific qualities sought, oriented activity, evaluation and potency are equally represented.
5. That despite the restrictions involved in obtaining the separate samples of each constituent body, there is no significant differentiation in making free associations.
6. That homogeneity of variance is operative despite the limitations in sample selection and size.

PROCEDURES FOR COLLECTING DATA

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1. Through a Semantic Differentiation questionnaire (See Appendix A), affective and cognitive connotations toward various aspects of the Institutional Governance system by administrators, faculty, students and non-contract personnel has been reflected.
2. These questionnaires were administered by this writer during the month of November.
3. The examiner coded the questionnaires according to the constituent group the respondent represented.
4. On the questionnaire there are ten pairs of words for each of the three modes of meaning: Oriented Activity, (Numbers 1, 4, 10, 11, 15, 18, 20, 22, 26, and 29), Evaluation (Numbers 2, 3, 7, 9, 13, 17, 21, 24, 27 and 28), and Potency (Numbers 5, 6, 8, 12, 14, 16, 19, 23, 25, and 30) as described by Osgood, Suci and Tannenbaum (1953-63).

PROCEDURES FOR TESTING DATA

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The general null hypothesis is that no significant differences in the Semantic Differential results among the various constituent groups regarding the Institutional Governance at Delaware County Community College.

Separate tests were conducted for each of the three modes of meaning: Oriented Activity, Evaluation and Potency in order to derive the overall meaning. Therefore, the following sub-hypotheses, null and alternative, were tested.

H_{01} There is no significant difference in the Semantic Differential results for oriented activity meaning among the various constituent groups regarding the Institutional Governance.

H_{a1} There is a significant difference in the Semantic Differential results for oriented activity meaning among the various constituent groups regarding the Institutional Governance.

H_{02} There is no significant difference in the Semantic Differential results for evaluative meaning among the various constituent groups regarding the Institutional Governance.

H_{a2} There is a significant difference in the Semantic Differential results for evaluative meaning among the various constituent groups regarding the Institutional Governance.

H_{03} There is no significant difference in the Semantic Differential results for potency meaning among the various constituent groups regarding Institutional Governance.

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H_a 3 There is a significant difference in the Semantic Differential results for potency meaning among the various constituent groups regarding the Institutional Governance.

In order to eliminate all negative numbers for use in an F test, the scores on the survey were transposed into a one to seven scale by adding four to each score described on the minus three to plus three scale. These null hypotheses were then tested by the "F test" for analysis of variance for one way design at the .05 level of significance. The computations were done by hand with the assistance of a Datamath TI-2500B electronic calculator.

RESULTS

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The results of the statistical calculations indicated a failure to reject the null hypotheses for all three areas of semantic differential: Oriented Activity, Evaluation and Potency. The degrees of freedom for the between sum of squares are three and for the within sum of squares are thirty-six. According to the distribution of "F Tables," any finding greater than 2.86 is significant. The "F" data were computed as follows: Oriented Activity, $F = 1.72$; Evaluation, $F = 2.73$; and Potency, $F = 0.19$. Therefore, none of the null hypotheses could be rejected. (See Appendix C, Tables I -A, B and C).

This study was conducted to discover if there were significant differences in affective reactions to the Institutional Governance system at Delaware County Community College by four constituent groups--administration, faculty, students and non-contract personnel--in the specific areas, Oriented Activity, Evaluation and Potency according to the semantic differential of Osgood, Suci and Tannenbaum. There appears to be no such differences in these broad areas; indeed, the findings suggest a high degree of agreement among all the groups.

As for the general null hypothesis that there are significant differences in the Semantic Differential results overall, no "t Test" could be conducted since the various "F tests" were not significant. Statistically, one is not allowed to test for the differences in the means if the variance is not significant. The only statement that can be made of such a general nature is that on a scale of minus three to plus three for all categories in all three modes, the total mean was -0.36 , a very slight indication of lack of affective

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and connotative satisfaction with the Institutional Governance system by all of the constituencies. It is, then, only in the "residual findings" that significant, and meaningful, data became manifest.

RESIDUAL FINDINGS

An examination of the mean scores of the various constituent respondees as rated from minus three to plus three as shown in Graphs I A, B and C in Appendix B indicates a very high degree of consistency. In no one of the three general areas--Oriented Activity, Evaluation or Potency--do the means scores vary significantly. In each case, the faculty have the lowest mean and students the highest mean, but the total correlation is very high.

Further inspection suggests that overall, the Institutional Governance system does not generate great affective reaction except in a few specific categories. It seems safe to suggest that the system is viewed as quite aggravating by all parties (Mean of the means = -1.86). This may be true since it is also viewed by most if not all constituent groups as quite slow, constraining and complex and somewhat weak, limited in its success and slightly painful.

To elaborate on the various constituencies' ranking of the Institutional Governance system in general, careful examination of the means of the various groups yields a ranking of overall view on this measurement scale of faculty having the least regard for the Governance system ($\bar{X} = -0.67$), next the administration ($\bar{X} = -0.40$), then the non-contract personnel ($\bar{X} = -0.37$) and the students with the highest, and only positive overall mean ($\bar{X} = 0.06$).

Though the students are the most receptive, statistically this can only be demonstrated in a few individual categories. Also, in even

fewer cases, the non-contract personnel had a significantly more sanguine view of the system, especially when compared to the faculty. In no case did the faculty and the administration differ significantly in their perceptions. When individual "F tests" are computed for each category, there are three degrees of freedom for the between sum of squares and thirty-eight degrees of freedom for the within sum of squares. The distribution of F Tables dictate a result greater than 2.85 in order to be significant. In those individual categories where the "F test" findings were significant, "t Tests" for the differences of means were computed. For simplicity, only statistically significant findings, at the .05 level, are itemized. (See Appendix D, Tables II, A through E).

In the Oriented Activity mode we find the most significant differences. Here the students were found to view the Institutional Governance more successful than the other constituencies, and were the only group to view it positively on the "unsuccessful - successful" scale, the others all saw it in varying degrees of "unsuccessful". Comparing faculty--who saw it as most "unsuccessful"--with the students, a t score of 6.101 (df = 21) was obtained; administration and students yielded a t score of 5.350 (df = 13); and non-contract personnel and students computed to a t score of 2.445 (df = 14). The faculty was also significantly less enchanted with the Governance success than the non-contract personnel--a t score of 2.315 (df = 25) was derived here.

In this same mode, the students saw the governance structure as much more "motivating" than the others, who varied in their degree

of "aimless" perception. Faculty and students computations yielded a t score of 2.74 ($df = 21$), while the administration and the students data gave a t score of 2.27 ($df = 13$). The faculty also viewed it as significantly more "aimless" than the non-contract personnel with a t score of 2.45 ($df = 25$).

The Evaluation affective and connotative domain or mode was quite similar for all groups with but one exception--that of timeliness. Here, too, the students saw it as quite "timely" while all of the others as somewhat "untimely." The differences between the students means and the other groups means computed as follows: with administration, $t = 8.664$ ($df = 13$); with faculty, $t = 5.615$ ($df = 21$) and with non-contract personnel, $t = 3.87$ ($df = 14$).

In the potency affective and connotative mode, again, every finding was closely correlated for the different constituencies with one exception--that of "constrained-free." Here the students' mean rating was quite "free" whereas the other groups felt highly constrained. The differences of these means were: with administration, $t = 6.478$ ($df = 13$); with faculty, $t = 4.583$ ($df = 21$) and with non-contract personnel, $t = 6.857$ ($df = 14$).

As Table II-A indicates, the one area where the non-contract personnel were significantly different from the other groups (in addition to the differences with the faculty cited above) was in the Oriented Activity domain where the most discrepancies appeared. This difference was in the "passive-active" category. Whereas the non-

contract personnel viewed the Governance system as relatively "active," the other groups leaned toward "passive" in their reactions. The resulting differences in the means between the non-contract personnel and the other constituencies were as follows: with administration, $t = 2.48$ ($df = 17$); with faculty, $t = 4.11$ ($df = 26$) and with students, $t = 2.37$ ($df = 14$).

RECOMMENDATIONS

NOT AVAILABLE

This study did not attempt to deal with such intervening variables as interest in serving on the Institutional Governance, the degree of involvement in the Governance, the comfort of the individual in decision-making processes in general nor the type of committee the respondents sat on. It merely dealt with the affective, connotative attitudes towards the Institutional Governance system at Delaware County Community College of those representatives of the various constituent groups. All representatives available were contacted for the administration, students and non-contract personnel. Faculty respondees were chosen by random selection from a pool of roughly eighty potential personnel.

The student respondees are the most suspect in terms of homogeneity and true representation of all students. They had chosen, last year, to run for office. They were the few of all who had been selected to serve that actually became involved. The literature suggests that one can tell whether students actually feel really wanted and needed in a governance system by the willingness to serve, the number of meetings attended and the frequency of input and contributions. Those selected for this study had not "voted with their feet." Many others had. An interesting follow-up study would be to survey this latter group. It is probably true that the findings in this study are quite skewed due to the selection requirements.

To a lesser extent, this last point may also be true of the non-contract personnel. Much of their representation is elected, which implies a willingness to serve above the norm of the entire constituency. Since this involvement is "on company time," however, it may

well be that the choice to accept a nomination is predicated more on the desire for job variety than on interest in the College's Governance, per se.

With these caveats in mind, some interesting results can be inferred from this survey. Collectively, the attitudes of those involved, regardless of constituency, do not vary greatly. Individual attitudes vary from one end of the scale to the other. Nevertheless, there seems to be considerable agreement by all that the Institutional Governance system evokes a strong reaction on the Semantic Differential scale "aggravating-soothing." Collectively, it yielded the strongest reaction, being viewed as quite "aggravating" (\bar{X}_m or Mean of the means = -1.86).

Why is this so? Of course, this instrument was not designed to seek the reasons why an individual gave the response he did, but an inspection of results on other questionnaire items gives some strong clues. On the "slow-fast" scale, all rated it quite slow (\bar{X}_m = -1.74). Closely related to this finding is the rating on the "complex-simple" scale (\bar{X}_m = -1.63). The Governance system would appear to be too cumbersome. One of the most frequently cited errors in institutional governance systems is to have one committee report to another (e.g., 19). In the Delaware County Community College's governance system this happens frequently. It is even possible for one committee to recommend to another committee which in turn recommends to still a third committee. Quite naturally, then, the system is thought of as too slow. The structure should be simplified. Each committee should

report directly to an administrative office. That office should act on the recommendation as soon as feasible. The response should be in writing back to the committee, and reasons cited if the recommendation is not acceptable in its current form; revisions delineated, additional data stated if such be the case or compromises suggested.

The other general area that appears to explain the "aggravating" reaction lies in the effectiveness of the governance system. It is viewed as weak ($\bar{X}_m = -1.37$), somewhat "painful" ($\bar{X}_m = -0.80$) by all. Furthermore, if we examine only the employees--that is, drop out the students' reactions for the moment--we find two other strong reactions. The system is viewed as "unsuccessful" (\bar{X}_{m-s} or grand mean without students = -1.31) and "constraining" ($\bar{X}_{m-s} = -1.98$)!

It is incumbent on the Board of Trustees and the administration of any institution to make several mental commitments when and if an institutional governance structure is instituted. One of requisite commitments is, in the vernacular, "You can't win 'em all." That is to say, a spirit of compromise is essential. Faith in the system is required. Willingness to abide by group decisions wherever feasible is necessary. An institutional governance system is predicated on the bases that 1) collective thinking is more productive than individual thinking; 2) group responses are more efficacious if the group feels a part of the decision-making process; 3) change is more readily accepted if collective thought recommends the change and 4) poor decisions are more easily understood and retracted when all feel partly responsible for the poor decision. In light of the perceived weakness, lack of success and constrained reactions by the respondents, it would

appear that the Institutional Governance system members at Delaware County Community College feel that much effort is spent but little is accomplished. Committee decisions are made, but little action takes place. A college is not, of course, a democracy. The board of trustees and its delegated authorities, the administration, is responsible for all actions, decisions and policies of the school. If it is, however, to set up an institutional governance system, in order to make it viable, meaningful, successful, it must permit committee decisions to stand wherever possible and to actively implement such decisions.

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"By-Laws of the Institutional Governance, Revised 1972." "Delaware County Community College Policy Manual." 1974.

Appendix A

DIRECTIONS

This attitudinal questionnaire is designed to gather your impression of the Institution Governance system at Delaware County Community College

On the following page there is a question in capitalized letters at the TOP of the page. You will also notice that there are 30 pairs of opposite words underneath the capitalized sentence. Between each of the pairs of opposites there are 7 dashes. You are to place a check mark on one of the 7 lines that are between the two opposite words and the check mark should indicate what the word or sentence at the TOP of the page means to you. Look at the examples below:

Example 1:

MAN

Line 1:	Good	<u>X</u>	:		:		:		:		:		:		:		:		:		:		:		:		:		:		Bad
Line 2:	Slow		:		:	<u>X</u>	:		:		:		:		:		:		:		:		:		:		:		:		Fast
Line 3:	Cruel		:		:		:		:		:	<u>X</u>	:		:		:		:		:		:		:		:		:		Kind

In this example MAN is the word at the top of the page and the pairs of opposites are Good-Bad, Slow-Fast, and Cruel-Kind. If MAN seemed to you to mean something very Good, you would make a check as in Line 1. If MAN seemed to you to mean something quite SLOW, then you would place your check mark as in Line 2. And if you feel that MAN means something which is a little CRUEL, then you would put your check mark as in Line 3.

In the following example a check has been placed to illustrate how someone would place his check marks if he thought that TIGER was something very Bad, very Fast, and very Cruel:

Example 2:

TIGER

Line 1:	Good		:		:		:		:		:		:		:		:		:		:		:		:		:		:		Bad
Line 2:	Slow		:		:		:		:		:		:		:		:		:		:		:		:		:		:		Fast
Line 3:	Cruel	<u>X</u>	:		:		:		:		:		:		:		:		:		:		:		:		:		:		Kind

Sometimes you will feel that the word or sentence at the TOP of the page is neither Good nor Bad, neither Slow nor Fast and neither Cruel nor Kind. On the sample below, using the word TREE, place your check marks to indicate how you would show this feeling.

SAMPLE

TREE

Line 1:	Good		:		:		:		:		:		:		:		:		:		:		:		:		:		:		Bad
Line 2:	Slow		:		:		:		:		:		:		:		:		:		:		:		:		:		:		Fast
Line 3:	Cruel		:		:		:		:		:		:		:		:		:		:		:		:		:		:		Kind

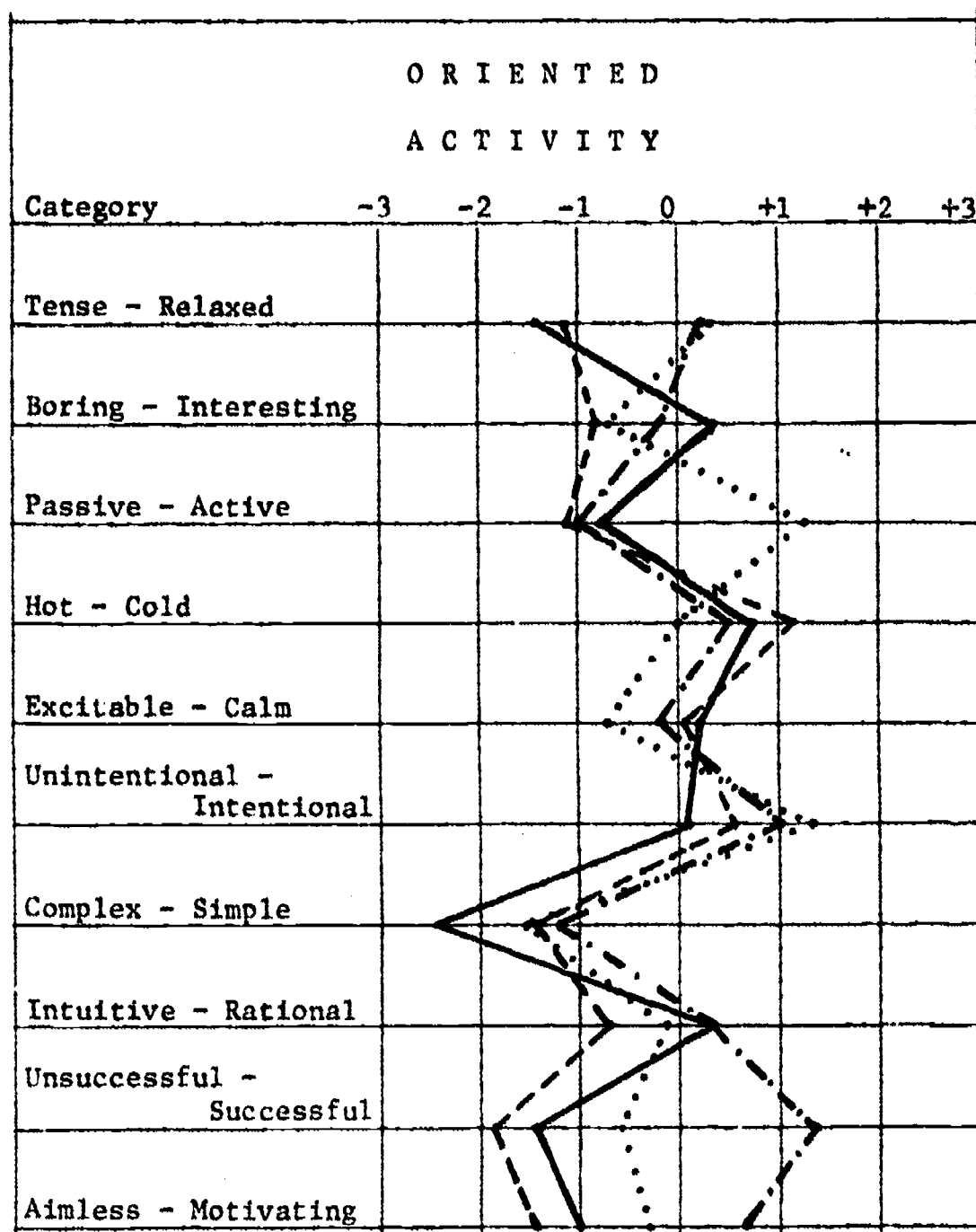
On the following page, place your check marks rapidly. What is wanted is your first impression. There are no "right" or "wrong" answers. Be sure to make only one check mark for each pair of words. Do not skip any pairs of words or pages.

HOW DO YOU PERCEIVE THE DCCC INSTITUTIONAL GOVERNANCE?

Relaxed	_____	_____	_____	_____	_____	_____	Tense
Meaningful	_____	_____	_____	_____	_____	_____	Meaningless
Safe	_____	_____	_____	_____	_____	_____	Dangerous
Interesting	_____	_____	_____	_____	_____	_____	Boring
Lenient	_____	_____	_____	_____	_____	_____	Severe
Humorous	_____	_____	_____	_____	_____	_____	Serious
Negative	_____	_____	_____	_____	_____	_____	Positive
Efficient	_____	_____	_____	_____	_____	_____	Destructive
Worthless	_____	_____	_____	_____	_____	_____	Valuable
Active	_____	_____	_____	_____	_____	_____	Passive
Hot	_____	_____	_____	_____	_____	_____	Cold
Fast	_____	_____	_____	_____	_____	_____	Slow
Incomplete	_____	_____	_____	_____	_____	_____	Complete
Heavy	_____	_____	_____	_____	_____	_____	Light
Calm	_____	_____	_____	_____	_____	_____	Excitable
Strong	_____	_____	_____	_____	_____	_____	Weak
Timely	_____	_____	_____	_____	_____	_____	Untimely
Unintentional	_____	_____	_____	_____	_____	_____	Intentional
Constrained	_____	_____	_____	_____	_____	_____	Free
Simple	_____	_____	_____	_____	_____	_____	Complex
Painful	_____	_____	_____	_____	_____	_____	Pleasurable
Rational	_____	_____	_____	_____	_____	_____	Intuitive
Large	_____	_____	_____	_____	_____	_____	Small
Wise	_____	_____	_____	_____	_____	_____	Foolish
Feminine	_____	_____	_____	_____	_____	_____	Masculine
Unsuccessful	_____	_____	_____	_____	_____	_____	Successful
Deep	_____	_____	_____	_____	_____	_____	Shallow
Soothing	_____	_____	_____	_____	_____	_____	Aggravating
Motivating	_____	_____	_____	_____	_____	_____	Aimless
Fragile	_____	_____	_____	_____	_____	_____	Tough

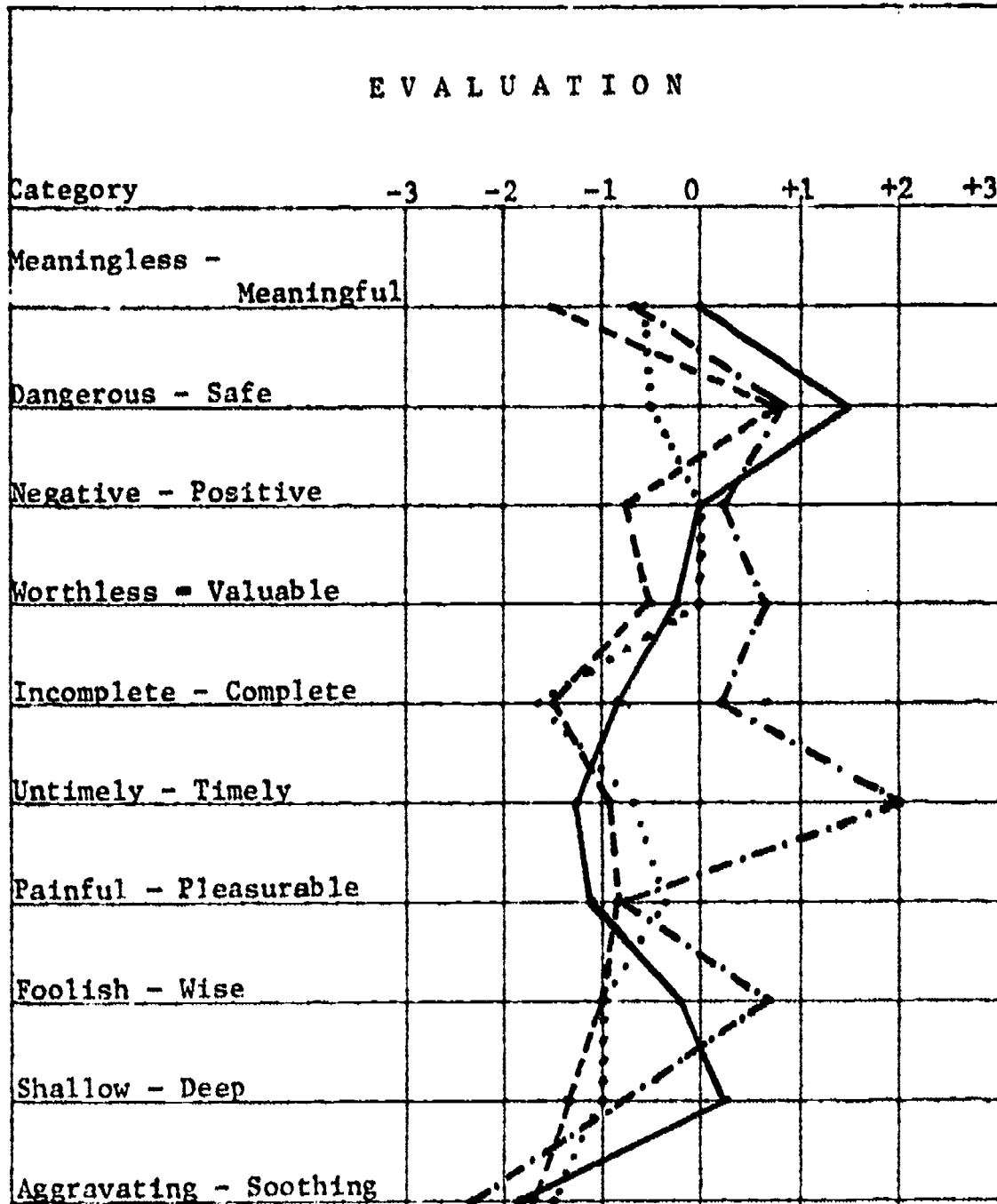
GRAPH I-A

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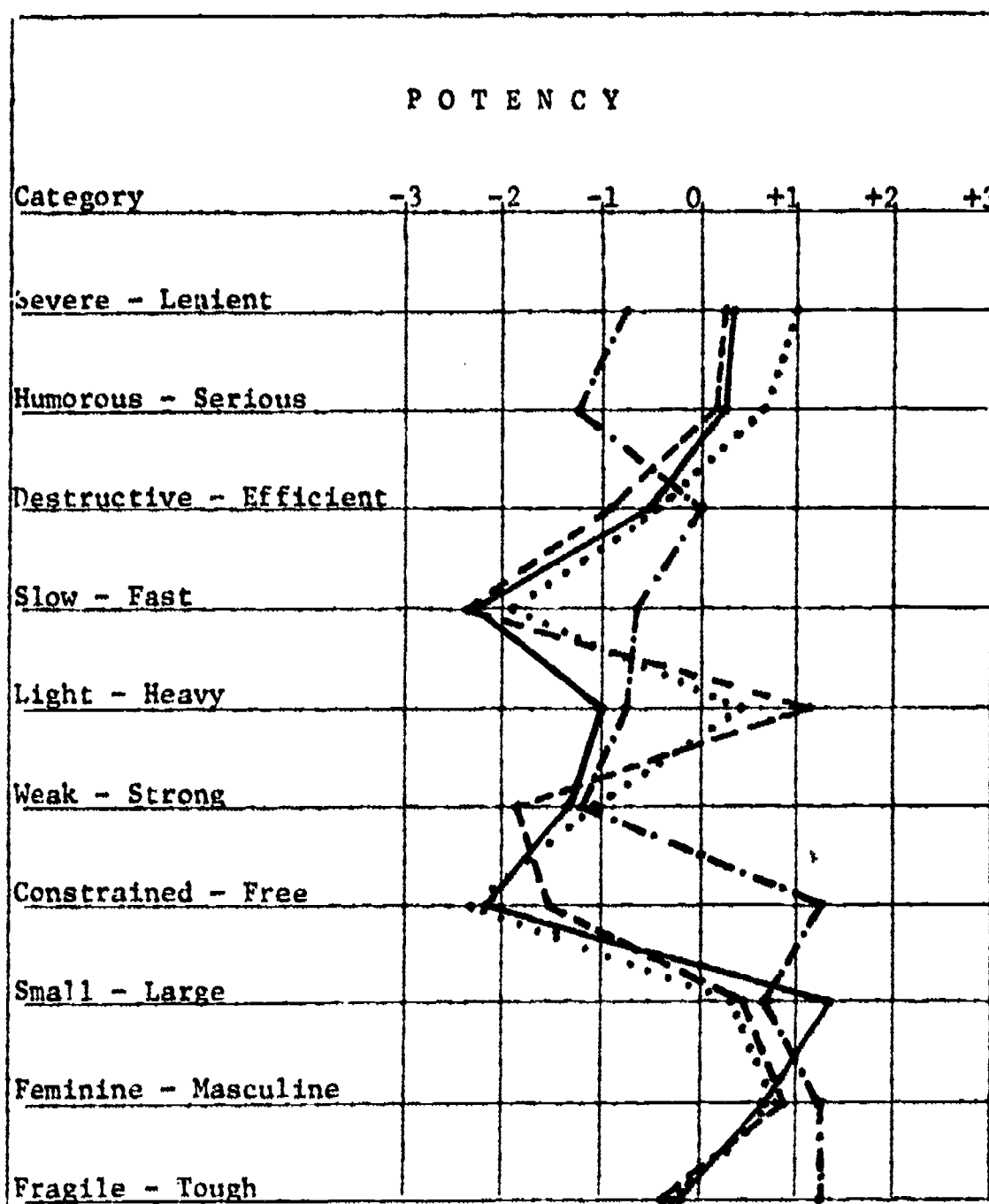


— Administration	N = 9	$\bar{X} = -0.54$
- - - Faculty	N = 17	$\bar{X} = -0.68$
- . - Students	N = 6	$\bar{X} = 0.15$
. . . Non-Contract Personnel	N = 10	$\bar{X} = -0.13$

GRAPH I-B



Administration	N = 9	$\bar{X} = -0.39$
Faculty	N = 17	$\bar{X} = -0.96$
Students	N = 6	$\bar{X} = 0.09$
Non-Contract Personnel	N = 10	$\bar{X} = -0.73$



— Administration	N = 9	$\bar{X} = -0.28$
- - - Faculty	N = 17	$\bar{X} = -0.42$
- . - Students	N = 6	$\bar{X} = -0.05$
. . . Non-Contract Personnel	N = 10	$\bar{X} = -0.30$

TABLE I-A
ORIENTED ACTIVITY MEANS - BY CONSTITUENCY

Negative category	Constituencies				Positive Category	
	Administration	Faculty	Students	Non-Contr. Pers.		
	\bar{X} \bar{X}^2	\bar{X} \bar{X}^2	\bar{X} \bar{X}^2	\bar{X} \bar{X}^2		
Tense	2.56* 6.55	2.82 7.95	4.17 17.39	4.20 17.64	Relaxed	
Boring	4.33 18.75	3.18 10.11	3.83 14.67	3.30 10.89	Interesting	
Passive	3.22 10.37	2.88 8.29	3.00 9.00	5.20 27.04	Active	
Hot	4.67 21.81	5.12 26.21	4.50 20.25	4.00 16.00	Cold	
Excitable	4.22 17.81	4.06 16.48	3.83 14.67	3.20 10.24	Calm	
Unintentional	4.11 16.89	4.59 21.07	5.00 25.00	5.30 28.09	Intentional	
Complex	1.56 2.43	2.59 6.71	2.83 8.01	2.50 6.25	Simple	
Intuitive	4.33 18.74	3.24 10.50	4.33 18.75	3.90 15.21	Rational	
Unsuccessful	2.56 6.55	2.12 4.49	5.33 28.41	3.40 11.56	Successful	
Aimless	3.00 9.00	2.59 6.71	4.67 21.81	3.70 13.69	Motivating	
Totals	34.46 128.91	33.19 118.52	41.51 177.96	38.70 156.61		
	$\bar{X} = 3.45$ N = 9	$\bar{X} = 3.32$ N = 17	$\bar{X} = 4.15$ N = 6	$\bar{X} = 3.87$ N = 10		

TOTAL SUM OF SQUARES = 582.00 - 546.56 = 35.44
 BETWEEN SUM OF SQUARES = 118.75 + 110.16 + 172.31 + 149.77 - 546.56 = 4.43
 WITHIN SUM OF SQUARES = 10.16 + 8.36 + 5.65 + 6.84 = 31.01

SOURCES OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE	
BETWEEN	3	4.43	1.48	F = 1.48/0.86
WITHIN	36	31.01	0.86	F = 1.72
TOTALS	39	35.44		NOT SIGNIFICANT

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* Computed on a 1 to 7 scale

TABLE I-B
EVALUATION MEANS - BY CONSTITUENCY

Negative Category	Constituencies				Positive Category
	Administration	Faculty	Students	Non-Contr. Pers.	
	\bar{X} \bar{X}^2	\bar{X} \bar{X}^2	\bar{X} \bar{X}^2	\bar{X} \bar{X}^2	
Meaningless	4.00* 16.00	2.47 6.10	3.33 11.09	3.40 11.56	Meaningful
Dangerous	5.44 29.59	4.71 22.18	4.83 23.33	3.50 11.56	Safe
Negative	4.00 16.00	3.18 10.11	4.17 17.38	4.00 16.00	Positive
Worthless	3.78 14.29	3.41 11.63	4.67 21.31	4.00 16.00	Valuable
Incomplete	3.11 9.67	2.53 6.40	4.17 17.39	2.40 5.76	Complete
Untimely	2.78 7.73	3.06 9.36	6.00 36.00	3.30 10.89	Timely
Painful	2.89 8.35	3.12 9.73	3.17 10.05	3.60 12.96	Pleasurable
Foolish	3.78 14.29	3.00 9.00	4.67 21.81	3.00 9.00	Wise
Shallow	4.22 17.81	2.65 7.02	4.17 17.39	3.00 9.00	Deep
Aggravating	2.11 4.45	2.29 5.24	1.67 2.79	2.50 6.25	Soothing
Totals	36.11 138.18	30.42 96.79	40.85 179.04	32.70 109.67	
	$\bar{X} = 3.61$ N = 9	$\bar{X} = 3.04$ N = 17	$\bar{X} = 4.09$ N = 6	$\bar{X} = 3.27$ N = 10	

TOTAL SUM OF SQUARES = 523.68 - 490.60 = 33.08
 BETWEEN SUM OF SQUARES = 130.39 + 92.54 + 166.87 + 106.93 - 490.60 = 6.13
 WITHIN SUM OF SQUARES = 7.79 + 4.25 + 12.17 + 2.74 = 26.95

SOURCES OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE	
BETWEEN	3	6.13	2.04	F = 2.04/0.75
WITHIN	36	26.95	0.75	F = 2.72
TOTALS	39	33.08		NOT SIGNIFICANT

* Computed on a 1 to 7 scale

Appendix D

TABLE II-A

ORIENTED ACTIVITY

PASSIVE - ACTIVE

Administration		Faculty		Students		Non-Contract Personnel	
X	X ²	X	X ²	X	X ²	X	X ²
5*	25	3	9	3	9	6	36
5	25	3	9	3	9	4	16
2	4	2	4	2	4	2	4
4	16	4	16	3	9	7	49
5	25	2	4	6	36	7	49
2	4	2	4	1	1	6	36
2	4	2	4			7	49
3	9	4	16			4	16
1	1	3	9			2	4
		2	4			7	49
		4	16				
		5	25				
		3	9				
		2	4				
		2	4				
		4	16				
		2	4				
TOTALS	29 113	49 157		18 68		52 308	
$\bar{X} = 3.22$		$\bar{X} = 2.88$		$\bar{X} = 3.00$		$\bar{X} = 5.20$	
N = 9		N = 17		N = 6		N = 10	

TOTAL SUM OF SQUARES = 646.00 - 521.52 = 124.48
 BETWEEN SUM OF SQUARES = 93.44 + 141.24 + 54.00 + 270.40 - 521.52 = 37.56
 WITHIN SUM OF SQUARES = 19.56 + 15.76 + 14.00 + 37.60 = 86.92

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE
BETWEEN	3	37.56	12.52
WITHIN	38	86.92	2.28
TOTAL	41	124.48	

$$F = 12.52/2.28 = 5.49 \quad \text{DIFFERENCE IS SIGNIFICANT}$$

Admin. - Non-Contr. $S_{D_x} = \sqrt{\frac{(19.56+37.60)(.211)}{19}} = .635$ $t = (3.22-5.20)/.797$
 $\sqrt{.635} = .797$ $t = 2.48$ $df = 17$ SIG.

Faculty - Non-Contr. $S_{D_x} = \sqrt{\frac{(15.76+37.60)(.159)}{27}} = .314$ $t = (5.20-2.88)/.564$
 $\sqrt{.314} = .564$ $t = 4.11$ $df = 26$ SIG.

Students - Non-Contr. $S_{D_x} = \sqrt{\frac{(14.00+37.60)(.267)}{16}} = .861$
 $\sqrt{.861} = .927$ $t = (5.20-3.00)/.927$
 $t = 2.37$ $df = 14$ SIG.

* Computed on a 1 to 7 Scale

TABLE II-B

ORIENTED ACTIVITY

UNSUCCESSFUL - SUCCESSFUL

Administration		Faculty		Students		Non-Contract Personnel	
X	X ²	X	X ²	X	X ²	X	X ²
2*	4*	1	1	7	49	2	4
5	25	1	1	6	36	2	4
1	1	3	9	6	36	3	9
2	4	1	1	4	16	2	4
2	4	4	16	5	25	1	1
4	16	2	4	5	25	5	25
2	4	2	4			7	49
2	4	1	1			4	16
2	4	2	4			3	9
		1	1			6	36
		1	1				
		3	9				
		2	4				
		2	4				
		4	16				
		1	1				
		5	25				
TOTALS	22 66	36 102		33 187		35 157	
	$\bar{X} = 2.44$	$\bar{X} = 2.12$		$\bar{X} = 5.50$		$\bar{X} = 3.50$	
	N = 9	N = 17		N = 6		N = 10	

TOTAL SUM OF SQUARES = 512 - 378 = 134.00
 BETWEEN SUM OF SQUARES = 53.78 + 76.24 + 181.50 + 122.50 - 378.00 = 56.02
 WITHIN SUM OF SQUARES = 12.22 + 25.76 + 5.50 + 34.50 = 77.98

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE
BETWEEN	3	56.02	18.67
WITHIN	38	77.98	2.05
TOTAL	41	134.00	

F = 18.67/2.05 = 9.11 DIFFERENCE IS SIGNIFICANT

Faculty - Students	$S_{D_x} = \sqrt{(25.76+5.50)(.226)/23} = \sqrt{.307} = .554$	$t = (5.50-2.12)/.554$ $t = 6.101 \quad df = 21 \quad \text{SIG.}$
Admin. - Students	$S_{D_x} = \sqrt{(12.22+5.50)(.277)/15} = \sqrt{.327} = .572$	$t = (5.50-2.44)/.572$ $t = 5.350 \quad df = 13 \quad \text{SIG.}$
Non-Contr. - Stud.	$S_{D_x} = \sqrt{(34.50+5.50)(.267)/16} = \sqrt{.668} = .818$	$t = (5.50-3.50)/.818$ $t = 2.445 \quad df = 14 \quad \text{SIG.}$
Fac. - Non-Contr.	$S_{D_x} = \sqrt{(25.76+34.50)(.159)/27} = \sqrt{.355} = .596$	$t = (3.50-2.12)/.596$ $t = 2.315 \quad df = 25 \quad \text{SIG.}$

* Computed on a 1 to 7 Scale,

TABLE II-C

ORIENTED ACTIVITY

AIMLESS - MOTIVATING

Administration		Faculty		Students		Non-Contract Personnel	
X	X ²	X	X ²	X	X ²	X	X ²
5*	25	5	25	4	16	4	16
3	9	1	1	7	49	3	9
2	4	4	16	2	4	4	16
4	16	7	49	4	16	7	49
4	16	3	9	5	25	5	25
2	4	3	9	6	36	4	16
2	4	1	1			3	9
4	16	1	1			4	16
1	1	2	4			2	4
		2	4			4	16
		2	4				
		4	16				
		4	16				
		1	1				
		1	1				
		1	1				
		1	1				
TOTALS	27 95	43 159		28 146		40 176	
$\bar{X} = 3.00$		$\bar{X} = 2.47$		$\bar{X} = 4.67$		$\bar{X} = 4.00$	
N = 9		N = 17		N = 6		N = 10	

TOTAL SUM OF SQUARES = 576.00 - 453.43 = 122.57
 BETWEEN SUM OF SQUARES = 81.00 + 108.77 + 130.67 + 160.00 - 453.43 = 27.01
 WITHIN SUM OF SQUARES = 14.00 + 50.23 + 15.33 + 16.00 = 95.56

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE
BETWEEN	3	27.01	9.00
WITHIN	38	95.56	2.52
TOTAL	41	122.57	

$F = 9.00/2.52 = 3.57$ DIFFERENCE IS SIGNIFICANT

Admin. - Students	$S_{D_x} = \sqrt{(14.00+16.00)(.277)/15} = .554$ $\sqrt{.554} = .735$	$t = (4.67-3.00)/.735$ $t = 2.27 \text{ df} = 13$ <u>SIG.</u>
Faculty - Students	$S_{D_x} = \sqrt{(50.23+15.33)(.226)/23} = .644$ $\sqrt{.644} = .803$	$t = (4.67-2.47)/.803$ $t = 2.74 \text{ df} = 21$ <u>SIG.</u>
Fac. - Non-Contr.	$S_{D_x} = \sqrt{(50.23+16.00)(.159)/27} = .390$ $\sqrt{.390} = .625$	$t = (4.00-2.47)/.625$ $t = 2.45 \text{ df} = 25$ <u>SIG.</u>

* Computed on a 1 to 7 Scale

TABLE II-D

EVALUATION

UNTIMELY - TIMELY

10.13.1

Administration		Faculty		Students		Non-Contract Personnel	
X	X ²	X	X ²	X	X ²	X	X ²
2*	4	5	25	7	49	2	4
4	16	3	9	6	36	1	1
3	9	4	16	7	49	7	49
4	16	1	1	7	49	1	1
2	4	4	16	6	36	6	36
3	9	3	9	7	49	7	49
4	16	2	4			2	4
2	4	4	16			1	1
1	1	2	4			4	16
		3	9			2	4
		2	4				
		4	16				
		3	9				
		1	1				
		4	16				
		7	49				
		4	16				
TOTALS	25	56	220	40	268	33	165
	$\bar{X} = 2.78$		$\bar{X} = 3.29$		$\bar{X} = 6.67$		$\bar{X} = 3.30$
	N = 9		N = 17		N = 6		N = 10

TOTAL SUM OF SQUARES = 732.00 - 564.67 = 167.33
 BETWEEN SUM OF SQUARES = 69.44 + 184.47 + 266.67 + 108.90 - 564.67 = 64.81
 WITHIN SUM OF SQUARES = 9.56 + 35.53 + 1.33 + 56.10 = 102.52

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE
BETWEEN	3	64.81	21.60
WITHIN	38	102.52	2.70
TOTAL	41	167.33	

$$F = 21.60/2.70 = 8.00 \quad \text{DIFFERENCE IS SIGNIFICANT}$$

Admin. - Students	$S_{D_x} = \sqrt{(9.56+1.33)(.278)/15} = .202$	$t = (6.67-2.78)/.449$	
	$\sqrt{.202} = .449$	$t = 8.664 \quad df = 13$	<u>SIG.</u>
Faculty - Students	$S_{D_x} = \sqrt{(35.53+1.33)(.226)/23} = .362$	$t = (6.67-3.29)/.602$	
	$\sqrt{.362} = .602$	$t = 5.615 \quad df = 21$	<u>SIG.</u>
Non-Contr. - Studs.	$S_{D_x} = \sqrt{(56.10+1.33)(.276)/16} = .991$	$t = (6.67-3.30)/.995$	
	$\sqrt{.991} = .995$	$t = 3.387 \quad df = 14$	<u>SIG.</u>

* Computed on a 1 to 7 Scale

TABLE II-E

POTENCY

CONSTRAINED - FREE

Administration		Faculty		Students		Non-Contract Personnel	
X	X ²	X	X ²	X	X ²	X	X ²
3*	9	2	4	7	49	1	1
3	9	6	36	6	36	2	4
2	4	2	4	5	25	1	1
1	1	1	1	3	9	1	1
3	9	1	1	6	36	1	1
2	4	5	25	5	25	2	4
1	1	2	4			1	1
1	1	3	9			1	1
1	1	2	4			4	16
		3	9			2	4
		3	9				
		3	9				
		3	9				
		1	1				
		2	4				
		1	1				
		2	4				
TOTALS	17	42	134	32	180	16	34
$\bar{X} = 1.89$		$\bar{X} = 2.47$		$\bar{X} = 5.33$		$\bar{X} = 1.60$	
N = 9		N = 17		N = 6		N = 10	

TOTAL SUM OF SQUARES = 388.00 - 272.60 = 115.40
 BETWEEN SUM OF SQUARES = 32.11 + 103.76 + 170.67 + 25.60 - 272.60 = 59.54
 WITHIN SUM OF SQUARES = 7.89 + 30.24 + 9.33 + 8.40 = 55.86

SOURCE OF VARIANCE	DEGREES OF FREEDOM	SUM OF SQUARES	MEAN SQUARE
BETWEEN	3	59.54	19.85
WITHIN	38	55.86	1.47
TOTAL	41	115.40	

$F = 19.85/1.47 = 13.50$ DIFFERENCE IS SIGNIFICANT

Admin. - Students	$S_{D_x} = \sqrt{(7.89+9.33)(.278)/15} = .282$ $\sqrt{.282} = .531$	$t = (5.33-1.89)/.531$ $t = 6.478 \quad df = 13 \quad \underline{\text{SIG.}}$
Faculty - Students	$S_{D_x} = \sqrt{(30.24+9.33)(.226)/23} = .389$ $\sqrt{.389} = .624$	$t = (5.33-2.47)/.624$ $t = 4.583 \quad df = 21 \quad \underline{\text{SIG.}}$
Non-Contr. - Studs.	$S_{D_x} = \sqrt{(8.40+9.33)(.267)/16} = .296$ $\sqrt{.296} = .544$	$t = (5.33-1.60)/.544$ $t = 6.857 \quad df = 14 \quad \underline{\text{SIG.}}$

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* Computed on a 1 to 7 Scale